



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/973,206	10/09/2001	John M. Harris	CE08991R	5804
22917	7590	07/19/2007		
MOTOROLA, INC. 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196			EXAMINER WONG, WARNER	
			ART UNIT 2616	PAPER NUMBER
			NOTIFICATION DATE 07/19/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing.Schaumburg@motorola.com  
APT099@motorola.com

<b>Office Action Summary</b>	<b>Application No.</b> 09/973,206	<b>Applicant(s)</b> HARRIS, JOHN M.	
	<b>Examiner</b> Warner Wong	<b>Art Unit</b> 2616	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kokko (US 5, 790,534) in view of Applicant's Admitted Prior Art (AAPA).

**Regarding claim 1**, Kokko describes a method used in a base site (BS) (fig. 1), comprising:

determining a radio frequency (RF) load metric corresponding to a base site (fig. 1, 14 B & C, load control & monitor);

comparing the determined RF load metric to an RF load threshold to produce a comparison (col. 6, lines 34-46);

Kokko describes that the comparison determines whether if the BS has adequate resources (target) to handle the transmissions from/to the mobiles 12, but fails to explicitly describe that the resources comprises a jitter buffer depth.

AAPA describes that it is well-known within a cellular radio communication system that a receiving communication device (BS) comprises a jitter buffer.

It would have been obvious to one with ordinary skill in the art at the time of invention by applicant to interpret the jitter buffer within the BS described by AAPA as

part of the resources in the BS of Kokko in determination whether if overload (i.e. exceeding target) may occur from such determination.

The motivation for combining the teaching is that it controls the communication traffic loading of the channel(s) subjected to varying requirements of circuit switched and packet switch traffic from the mobile terminals (Kokko, col. 1, lines 34-38).

**Regarding claim 2**, Kokko and AAPA combined further suggests:

the determined RF load metric is greater than the RF load threshold, a jitter buffer depth target is used that is appropriate for a communication using retransmissions (Kokko, col. 6, lines 37-46, When overloading occurs, BS 16 denies MS 12 transmission in the next frame, requiring retransmission at a later time).

**Regarding claim 4**, Kokko further suggests:

when the determined RF load metric is greater than the RF load threshold, determining to retransmit erroneously received frames (col. 6, lines 25-46, BS determines whether if the MS may be permitted to re-transmit the NACK-ed frames).

2. **Claim 3** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kokko and AAPA as applied to claim 2 above, and further in view of Simonsson (US 6,950,669).

Kokko teaches that the loading monitor calculates the maximum allowable power to be used in the area of its cell (col. 7, lines 50-52), but fails to explicitly teach: determining to transmit frames at a lower power level when the determined RF load metric is greater than the RF load threshold.

Simonsson suggests: determining to transmit frames at a lower power level when the determined RF load metric is greater than the RF load threshold. (fig. 6, step 604 & col. 7, lines 51-58, after compensating for base station/cell's packet data loading, the power level for individual channels for a mobile is lowered if the channel quality is higher (RF load metric is greater than RF load threshold) than that for the channel's pre-determined data rate (threshold)).

It would have been obvious to one with ordinary skill in the art at the time of invention by applicant to use power level in compensating the (RF load metric) channel quality as in Simonsson for the RF compensation of Kokko.

The motivation for combining the teaching is that it improves the channel quality in packet data mobile radio networks (col. 2, lines 8-11).

3. **Claims 5 and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kokko and AAPA as applied to claim 1 above, and further in view of Uesugi (US 2003/0072266).

**Regarding claim 5**, Kokko and AAPA combined teach using a jitter buffer for wireless communication and using ACK/NACKS (AAPA, p1-2), but fails to teach:

when the determined RF load metric is less than the RF load threshold, a jitter buffer depth target is used that is appropriate for a communication using a reduced number of retransmissions.

Uesugi teaches wireless transmission using ACK/NACKs, comprising: assigning a communication using a reduce number of retransmissions (fig. 3 & paragraph 44,

Art Unit: 2616

when reception quality (RF load metric) is poor, number of retransmissions are reduced).

It would have been obvious to one with ordinary skill in the art at the time of invention by applicant to reduce the number of retransmissions when the channel quality (RF load metric) is poor as in Uesugi for the wireless transmission of Kokko and AAPA.

The motivation for combining the teaching is that it improves the efficiency of the (overall) transmission (Uesugi, abstract).

**Regarding Claim 7**, Kokko and AAPA combined teach using a jitter buffer for wireless communication and using ACK/NACKS (AAPA, p1-2), but fails to teach:

when the determined RF load metric is less than the RF load threshold, determining to reduce a use of retransmissions of erroneously received frames.

Uesugi teaches wireless transmission using ACK/NACKs, comprising: when the determined RF load metric is less than the RF load threshold, determining to reduce a use of retransmissions of erroneously received frames (fig. 3 & paragraph 44, when reception quality (RF load metric) is poor, number of retransmissions are reduced).

It would have been obvious to one with ordinary skill in the art at the time of invention by applicant to reduce the number of retransmission when the channel quality (RF load metric) is poor as in Uesugi for the wireless transmission of Kokko and AAPA...

The motivation for combining the teaching is that it improves the efficiency of the (overall) transmission (Uesugi, abstract).

4. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kokko in view of AAPA and Uesugi as applied to claim 5 above, and further in view of Simonsson (US 6,950,669).

Kokko teaches that the loading monitor calculates the maximum allowable power to be used in the area of its cell (col. 7, lines 50-52), but fails to explicitly teach:

determining to transmit frames at a higher power level when the determined RF load metric is less than the RF load threshold.

Simonsson suggests: determining to transmit frames at a higher power level when the determined RF load metric is less than the RF load threshold. (fig. 6, step 604 & col. 7, lines 51-58, after compensating for base station/cell's packet data loading, the power level for individual channels for a mobile is raised if the channel quality is lower (RF load metric is lower than RF load threshold) than that for the channel's pre-determined data rate (threshold)).

It would have been obvious to one with ordinary skill in the art at the time of invention by applicant to use power level in compensating the (RF load metric) channel quality as in Simonsson for the RF compensation of Kokko.

The motivation for combining the teaching is that it improves the channel quality in packet data mobile radio networks (col. 2, lines 8-11).

***Response to Arguments***

5. Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.
6. The declaration filed on April 19, 2007 under 37 CFR 1.131 is sufficient to overcome the Kurittu (US 2004/0120309) reference.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Padgett (US 6,895,235) describing adaptive load and coverage for wireless communication, Tiedemann (US 5,914,950) describing method for reverse link, Bauer (US 2001/0036155) describing radio telecommunication with improved use of air interface.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Warner Wong whose telephone number is 571-272-8197. The examiner can normally be reached on 6:30AM - 3:00PM, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Yao can be reached on 571-272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



DORIS H. TO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

Warner Wong  
Examiner  
Art Unit 2616

